

New U.S. Application  
PRELIMINARY AMENDMENT

PATENT

**IN THE CLAIMS:**

Please cancel claims 1-11 without prejudice or disclaimer and add new claims 12-22, as shown below in the detailed listing of all claims which are, or were, in this application:

Claims 1-11 (Canceled).

12. (New) A bioactive glass composition comprising  $\text{SiO}_2$ ,  $\text{Na}_2\text{O}$ ,  $\text{CaO}$ ,  $\text{K}_2\text{O}$ ,  $\text{MgO}$ ,  $\text{P}_2\text{O}_5$  and  $\text{B}_2\text{O}_3$ , wherein the amount of

$\text{SiO}_2$  is 51-56 wt-% of the starting oxides,

$\text{Na}_2\text{O}$  is 7-9 wt-% of the starting oxides,

$\text{CaO}$  is 21-23 wt-% of the starting oxides,

$\text{K}_2\text{O}$  is 10-12 wt-% of the starting oxides,

$\text{MgO}$  is 1-4 wt-% of the starting oxides,

$\text{P}_2\text{O}_5$  is 0.5-1.5 wt-% of the starting oxides, and

$\text{B}_2\text{O}_3$  is 0-1 wt-% of the starting oxides,

provided that the total amount of  $\text{Na}_2\text{O}$  and  $\text{K}_2\text{O}$  is 17-20 wt-% of the starting oxides.

13. (New) The bioactive glass composition of claim 12, wherein the amount of  $\text{SiO}_2$  is 54-56 wt-% of the starting oxides.

14. (New) The bioactive glass composition of claim 12, further comprising  $\text{Al}_2\text{O}_3$  up to 1 wt-% of the starting oxides provided that the total amount of  $\text{B}_2\text{O}_3$  and  $\text{Al}_2\text{O}_3$  is 0.5-2.5 wt-% of the starting oxides.

15. (New) The bioactive glass composition of claim 14, wherein a decrease of the amount of  $\text{Na}_2\text{O}$  and/or  $\text{K}_2\text{O}$  is compensated by the increase of the amount of  $\text{Al}_2\text{O}_3$  and/or  $\text{B}_2\text{O}_3$ .

16. (New) A method for coating a device comprising applying the bioactive glass composition of claim 12 to a device.

17. (New) An implantable device prepared from the bioactive glass composition of claim 12.

18. (New) A fiber prepared from the bioactive glass composition of claim 12.

19. (New) A sheet prepared from the bioactive glass composition of claim 12.

20. (New) A porous device prepared from the bioactive glass composition of claim 12 by injecting pressurized gas into the molten glass composition.

21. (New) A tissue engineering device prepared from the bioactive glass composition of claim 12.

22. (New) A method for manufacturing a repeatedly heat-treatable bioactive glass composition according to claim 12, comprising

- a) heating a mixture of starting materials to a temperature of 1350-1450 °C for a period of essentially three hours,
- b) allowing the obtained melt to cool down to ambient temperature for at least twelve hours,
- c) crushing the obtained solid glass into pieces,
- d) reheating the crushed glass material to a temperature of 1350-1450 °C for a period of essentially three hours, and
- e) molding the obtained bioactive glass composition into a desired shape and allowing it to cool down to ambient temperature.